LMS INTEGRATION CHECKLIST

Please follow the below steps to start accessing LabSim through LMS/LTI Integration.

**ADVANTAGES OF LMS INTEGRATION:**

**Single Sign On:** Students can get to their TestOut course after signing in to your School LMS.

**Link to Specific Sections:** Instructors can direct students to a specific video, lesson, lab or exam inside of LabSim.

**Reporting Outcomes to LMS:** Instructors can provide students the ability to send an outcome back to their LMS gradebook.

---

**Getting Started Steps:**

1. Make sure your LMS is LTI 1.1 compatible.

2. Download or get the LabSim/LMS Integration Form from your TestOut Account Executive.

3. Fill out [LMS Integration Form](#) & submit it to your TestOut Account Executive.

4. Receive a Consumer Key, Secret and the Launch URL from your TestOut Account Executive.

5. Using [LabSim LMS Integration Document](#), [LabSim LTI Support Technical Documentation](#), and TestOut Integration Guide, work with your LMS administrator to set up your LMS Course to link to LabSim.
   a. [Blackboard Integration Guide](#)
   b. [Canvas Integration Guide](#)
   c. [Moodle Integration Guide](#)

6. Test LabSim/LMS Integration in a staging, test or one class environment.

   **Do not immediately implement full scale for all classes!**

7. If testing was successful (see page 2 for an Integration Testing Checklist), work with your TestOut Account Executive to implement for all classes using TestOut courses.
Advanced Startup Instructional Tips and Common Questions:

- **LMS Course Export (course shell) Files**
  - LabSim product title course exports may be available for your LMS. Please check with your account manager to verify.

- **Integration Testing Checklist**
  - Utilizing your Consumer Key and Consumer Secret, set up TestOut as a Tool Provider within the installed instance of your LMS.
  - Within your LMS (logged in as a teacher/admin) create a course that contains LabSim based assignment(s) to which a student can link.
  - Within your LMS (logged in as a student) click on created assignment(s) to verify the student is taken into the correct LabSim product title, and to the specifically designated learning resource.
    - The specific LabSim product title and learning resource is designated by parameters utilized within the assignment URL.
  - If the learning resource is to be scored, and you desire a score to be returned from LabSim to your LMS, verify that this occurs.
    - Enabling scores to return to your LMS is also controlled by a parameter placed within the assignment URL, or within a custom parameter field within the Tool Provider configuration.

- **First-time LabSim students accessing LabSim from a LMS**
  - First-time LabSim students accessing LabSim from a LMS should not create LabSim accounts on www.testout.com.
  - Student accounts are created by the LTI integration process. This is accomplished when the student for the first time clicks an LMS based LabSim assignment link. At this point student information (name and email address) is sent from the LMS to the LabSim database and used to create the students LabSim account.
  - When a student has an existing LabSim account a new account does not need to be created. However, the LMS does need to integrate with the existing LabSim student account. This is accomplished when the student's email address as sent from the LMS matches up with the same email address within the students LabSim account. It’s important to make sure these email addresses match before the student attempts to access LabSim from their LMS.

- **Returning LabSim Scores to the LMS**
  - For scores to be returned from LabSim to the LMS the student needs to access LabSim from the LMS course. If the user accesses their account directly from www.testout.com scores will not pass back to a LMS. For example, to see the Submit Score button the student needs to link to each assignment from the LMS.
course. Navigating within LabSim, from say resource 4.3.5 to 4.7.8, when the student specifically linked to 4.3.5, would result in a Submit Score button being unavailable for 4.7.8. But when the student goes back to the LMS course and directly links to 4.7.8 they will see the Submit Score button.

- If the student attempts to navigate away from a score-able assignment before submitting their score a warning dialog is generated which advises the student to submit their score:

The labsim_allow_outcomes=true parameter can also be set as a global custom parameter within your LMS’s LTI Tool Provider configuration for TestOut, as opposed to needing to be on each individual assignment URL. Or, if not already the case, your Consumer Key and Secret can be programmed to automatically allow outcomes to be enabled.

- **Accessing Your LabSim Product After Class is Over**
  - If you would like the ability to access your LabSim product after the class concludes, you will need to create a new login and password before your class ends. *Please Note:* ONLY use this approach and method after your classwork has been completed. This will ensure that instructors can see your progress and scores.
Within LabSim as a student, and from your home page, click the “Welcome” drop-down box, then select “My Profile.”

In the resulting My Profile dialog box enter a new “Login,” and click on “Change Password” to create an account password. **Please Note:** Do not change your email address, as this may complicate LMS integration with future classes.

You may now access your LabSim courseware through both Blackboard and directly via [www.testout.com](http://www.testout.com).

To access direct, navigate to [www.testout.com](http://www.testout.com), click the “Login” button (upper right), enter your new login credentials (that you just created), and click “Secure Sign In.” Be sure to answer the security questions.

Click the product thumbnail or the product title to launch your product/course. Be it from your LMS, or directly via [www.testout.com](http://www.testout.com), from the time you first accessed your courseware/product title (the point of activation) you have 18 months access.

**IMPORTANT:** In order for graded activities to be recorded in your LMS, you must access the course content through the links provided within your LMS, not by signing in through [www. testout.com](http://www.testout.com).